Tarene™ 40

1: Identification

Product identifier: Tarene™ 40

Other means of identification: Synthetic pine tar on silicon dioxide

Supplier:

NATROCHEM, Inc.
P.O. Box 1205
Savannah, GA 31402-1205
912-236-4464

Recommended use: Rubber plasticizer, tackifier

Restrictions on use: Not applicable.

Emergency phone number:

CHEMTREC (USA)	800-424-9300
CHEMTREC (Int'l)	202-483-7616

2: Hazard(s) identification

GHS classification:

Skin corrosion/irritation – Category 2
Germ cell mutagenicity – Category 2
Carcinogenicity – Category 2
Specific target organ toxicity (Single exposure) – Category 3 (respiratory irritation, narcosis)
Aspiration hazard – Category 1
Hazardous to the aquatic environment, Acute hazard – Category 3

GHS label elements

Signal word: DANGER

Symbol(s):

Hazard statements:

Causes skin irritation
May cause respiratory irritation
May cause drowsiness or dizziness
Suspected of causing genetic defects
Suspected of causing cancer
Harmful to aquatic life
May be fatal if swallowed and enters airways

Hazards not otherwise classified:

Precautionary statements:

Prevention:

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.

	Avoid breathing fume/vapours. Do not get in eyes, on skin, or on clothing. Wash hands and forearms thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
Response:	IF ON SKIN (or hair): Wash with plenty of soap and water. Remove/take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. IF exposed or concerned: Get medical advice/attention. In case of fire: Use water spray (fog), or foam to extinguish.
Storage:	Store in a dry place. Store in a closed container.
Disposal:	Dispose of contents/container in accordance with applicable regulations.
Supplemental information:	Not applicable.

3: Composition

Substance/mixture: Mixture

Ingredient	Synonyms	CAS number	Concentration (%)
Tall oil pitch		8016-81-7	60-85
Tall oil		8002-26-4	5-25
Fuels, diesel, no. 2		68476-34-6	5-15
Naphthalene		91-20-3	< 0.1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

4: First-aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM, OR PHYSICIAN immediately; have SDS information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular, or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not give liquids. Do NOT induce vomiting. If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspiration.

Most important symptoms/effects, acute and delayed.

Potential acute health effects

Eye contact: No specific data.

Inhalation: No specific data.

Skin contact: No specific data.

Ingestion: No specific data.

Over-exposure signs/symptoms

Eye contact: No specific data.

Inhalation: No specific data.

Skin contact: No specific data.

Ingestion: No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media: Use water spray (fog) or foam.

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical: If in a fire or heated, a pressure increase will occur and the container may burst.

Hazardous thermal In the event of a fire, hazardous decomposition products may

decomposition products:	include: Carbon monoxide Carbon dioxide Other unidentified organic compounds
Special protective actions for firefighters:	No action shall be taken involving any personal risk or without proper training.
Special protective equipment for firefighters:	Firefighters and others who may be exposed to products of combustion should wear full firefighting turn out gear (full bunker gear) and self-contained breathing apparatus (SCBA) operated in pressure-demand mode (MSHA/NIOSH approved or equivalent).

6: Accidental release measures

Personal precautions, protective equipment, and emergency procedures

For non-emergency personnel:	Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. No action shall be taken involving any personal risk or without suitable training.
For emergency responders:	If specialized clothing is required to deal with the spillage, take note of any information in **Section 8** on suitable and unsuitable materials. See also the information immediately above in "For non-emergency personnel".
Environmental precautions:	Avoid release to sewers, waterways, soil, or air. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up

Small spill:	Stop leak if without risk. Move containers from spill area. Absorb with inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill:	Stop leak if without risk. Move containers from spill area. Contain and collect spillage with non-combustible absorbent material (sand, earth, vermiculite, diatomaceous earth) and place in container for disposal according to applicable regulations via a licensed waste disposal contractor.

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

7: Handling and storage

Precautions for safe handling

Protective measures:	Put on appropriate personal protective equipment (see **Section 8**).
Advice on general occupational hygiene:	Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove

contaminated clothing and protective equipment before entering eating areas. When transferring material into flammable solvents, use proper grounding to avoid electrical sparks. Avoid alteration of product properties before use. See also **Section 8** for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool, and well-ventilated area away from incompatible materials (see **Section 10**) and food and drink. Keep container tightly closed and sealed until ready for use. Do not store in unlabeled containers.

8: Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient	OSHA PEL	ACGIH TLV	NIOSH REL
Fuels, diesel, no. 2	Not available.	100 mg/m^3 TWA	Not available.
Naphthalene	50 mg/m^3 TWA 10 ppm TWA	10 ppm TWA 15 ppm STEL	50 mg/m^3 TWA 75 mg/m^3 STEL 10 ppm TWA 15 ppm STEL

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere, or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure that they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters, or engineering modifications to process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory, and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid

	exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: splash goggles.
Skin protection	
Hand protection:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. When handling hot material, wear heat-resistant gloves that are able to withstand the temperature of molten product.
Body protection:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection:	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

9: Physical and chemical properties

Appearance	
Physical state:	Liquid, semisolid.
Color:	Brown (dark).
Odor:	Bland. Smoke.
Odor threshold:	Not available.
pH:	Not available.
Melting/freezing point:	Not available.
Boiling point and range:	150°C
Flash point:	142°C (Cleveland open cup)
Evaporation rate:	Not available.
Flammability:	Not available.
Flammability or explosive limits:	Not available.
Vapor pressure:	Not available.
Vapor density:	Not available.
Relative density:	0.955
Solubility:	Not available.
Partition coefficient: n-octanol/water:	Not available.
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.
Viscosity:	150 SFS @ 122°F

10: Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: This product is stable.

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid: None known.
Refer to protective measures listed in **Sections 7 and 8**.

Incompatible materials: Reactive or incompatible with the following materials:
Strong oxidizing materials

Hazardous decomposition products: In the event of a fire, hazardous decomposition products may include:
Carbon monoxide
Carbon dioxide
Other unidentified organic compounds

11: Toxicological information

Information on toxicological effects

Acute toxicity

Conclusion/summary: No known significant effects or critical hazards.

Ingredient	Result	Species	Dose	Exposure
Tall oil pitch	LD_{50} oral LD_{50} dermal	Rat Rat	> 2,000 mg/kg > 2,000 mg/kg	- -
Tall oil	LD_{50} oral LD_{50} dermal	Rat Rat	> 2,000 mg/kg > 2,000 mg/kg	- -
Naphthalene	LD_{50} oral LD_{50} dermal LD_{50} dermal LC_{50} inhalation	Rat Rat Rabbit Rat	490 mg/kg > 2,500 mg/kg > 20 g/kg > 340 mg/kg	- - - 1 hour

Irritation/corrosion

Conclusion/summary

Ingredient	Result	Species	Score	Exposure	Observation
Tall oil	Skin – edema Skin – eschar Eyes – cornea opacity	Rabbit Rabbit Rabbit	0 0 0	- - -	- - -

Skin: No known significant effects or critical hazards.

Eyes: No known significant effects or critical hazards.

Respiratory: No known significant effects or critical hazards.

Sensitization

Conclusion/summary:

Ingredient	Route of exposure	Species	Result
Tall oil pitch	Skin	Guinea pig	Not sensitizing
Tall oil	Skin	Guinea pig	Not sensitizing

Skin: No known significant effects or critical hazards.

Respiratory: No known significant effects or critical hazards.

Mutagenicity:

Conclusion/summary: Components of this material have been positive in a mutagenicity study.

Ingredient	Test	Experiment	Result
Tall oil pitch	OECD 471 Bacterial reverse mutation test	In vitro (bacteria)	Negative
	OECD 476 In vitro mammalian cell gene mutation test	In vitro (mammalian-animal)	Negative
	OECD 473 In vitro mammalian chromosomal aberration test	In vitro (mammalian-human)	Negative
Tall oil	OECD 471 Bacterial reverse mutation test	In vitro (bacteria)	Negative
	OECD 476 In vitro mammalian cell gene mutation test	In vitro (mammalian-animal)	Negative
	OECD 473 In vitro mammalian chromosomal aberration test	In vitro (mammalian-human)	Negative

Carcinogenicity

Conclusion/summary: No known significant effects or critical hazards.

Classification

Ingredient	OSHA	IARC	NTP
Naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.

Carcinogen classification code:

IARC: 1, 2A, 2B, 3, 4
NTP: [Known/Reasonably anticipated] to be a human carcinogen
OSHA: +
Not listed/regulated: -

Reproductive toxicity

Conclusion/summary: No known significant effects or critical hazards.

Teratogenicity

Conclusion/summary: No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Target organs No known significant effects or critical hazards.

Aspiration hazard

Aspiration may result in chemical pneumonia, severe lung damage, respiratory failure, and even death.

Information on the likely routes of exposure: Routes of entry anticipated: oral, dermal, inhalation.

Potential acute health effects

Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.

Symptoms related to the physical, chemical, and toxicological characteristics

Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short- and long-term exposure

Short-term exposure

Potential immediate effects No known significant effects or critical hazards.
Potential delayed effects No known significant effects or critical hazards.

Long-term exposure

Potential immediate effects No known significant effects or critical hazards.
Potential delayed effects No known significant effects or critical hazards.

Potential chronic health effects

Ingredient	Result	Species	Dose	Exposure
Tall oil pitch	Chronic NOAEL oral	Rat	> 200 mg/kg	-
	Chronic NOAEL dermal	Rat	> 50 mg/kg	-
Tall oil	Chronic NOAEL oral	Rat	> 200 mg/kg	-
	Chronic NOAEL dermal	Rat	> 50 mg/kg	-

General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

12: Ecological information

Toxicity

Ingredient	Result	Species	Exposure
Tall oil pitch	NOEC 500 mg/L	Algae	72 hr
Fuels, diesel, no. 2	LC50 35 mg/L	Fish – *pimephales promelas*	96 hr flow-thru
Naphthalene	LC50 5.74-6.44 mg/L	Fish – *pimephales promelas*	96 hr flow-thru
	LC50 1.6 mg/L	Fish – *oncorhynchus mykiss*	96 hr flow-thru
	LC50 0.91-2.82 mg/L	Fish – *oncorhynchus mykiss*	96 hr static
	LC50 1.99 mg/L	Fish – *pimephales promelas*	96 hr static
	LC50 31.0265 mg/L	Fish – *lepomis macrochirus*	96 hr static
	EC50 0.4 mg/L	Algae – *skeletonoma costatum*	72 hr
	LC50 2.16 mg/L	Daphnia – *daphnia magna*	48 hr
	EC50 1.96 mg/L	Daphnia – *daphnia magna*	48 hr flow-thru
	EC50 1.09-3.4 mg/L	Daphnia – *daphnia magna*	48 hr static

Persistence and degradability

Ingredient	Test	Result	Dose	Inoculum
Tall oil pitch	OECD 301D Ready biodegradability – closed bottle test	36% - 28 days	-	-
Tall oil	OECD 301F Ready biodegradability – manometric respirometry test	73.2% - 28 days	-	-

Ingredient	Aquatic half-life	Photolysis	Biodegradability
Tall oil pitch	-	-	Not readily
Tall oil	-	-	Readily

Bioaccumulative potential

Ingredient	$LogP_{ow}$	BCF	Potential
Tall oil pitch	2.8-4.4	-	low
Tall oil	4.9-7.7	-	high

Mobility in soil

Soil/water partition coefficient (K_{OC}): Not available.

Other adverse effects: No known significant effects or critical hazards.

13: Disposal considerations

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions, and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Refer to Sections 6, 7, and 8 for additional information on accidental release measures, handling and storage, and exposure controls.

14: Transport information

	DOT	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.
Additional information	-	-	-

Special precautions for user: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Not available.

15: Regulatory information

Inventory status

United States inventory (TSCA 8b): All components are listed or exempted.

Australia inventory (AICS): All components are listed or exempted.

Canada inventory (DSL): All components are listed or exempted.

China inventory (IECSC): All components are listed or exempted.

Europe inventory (REACH): All components are listed or exempted.

Japan inventory (ENCS): All components are listed or exempted.

Korea inventory (KECI): All components are listed or exempted.

New Zealand inventory (NZIoC): All components are listed or exempted.

Philippines inventory (PICCS): All components are listed or exempted.

United States

US Federal regulations:

SARA Title III

Section 302 – Extremely Hazardous Chemicals:

The components in this product are either not SARA Section 302 regulated or are regulated but present in negligible concentrations.

Section 311/312 – Hazard Categories:

Acute health
Chronic health
Fire

Section 313 – Toxic Chemicals:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – Reportable Quantity (RQ)

Naphthalene: 100 lb (45.4 kg) final RQ

US State regulations:

Ingredient	NJ RTK	MA RTK	PN RTK	CA Prop. 65
Tall oil pitch	Not listed	Not listed	Not listed	Not listed
Tall oil	Not listed	Not listed	Not listed	Not listed
Fuels, diesel, no. 2	Listed	Not listed	Not listed	Not listed
Naphthalene	Listed	Listed	Listed	Listed

16: Other information

Key to abbreviations:

ATE	Acute toxicity estimate
BCF	Bioconcentration factor
GHS	Globally Harmonized System of classification and labeling of chemicals
IATA	International Air Transport Association
IBC	Intermediate bulk container
IMDG	International Maritime Dangerous Goods
LogPow	Logarithm of the octanol/water partition coefficient
MARPOL 73/78	International convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978. (MARPOL = marine pollution)
UN	United Nations

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